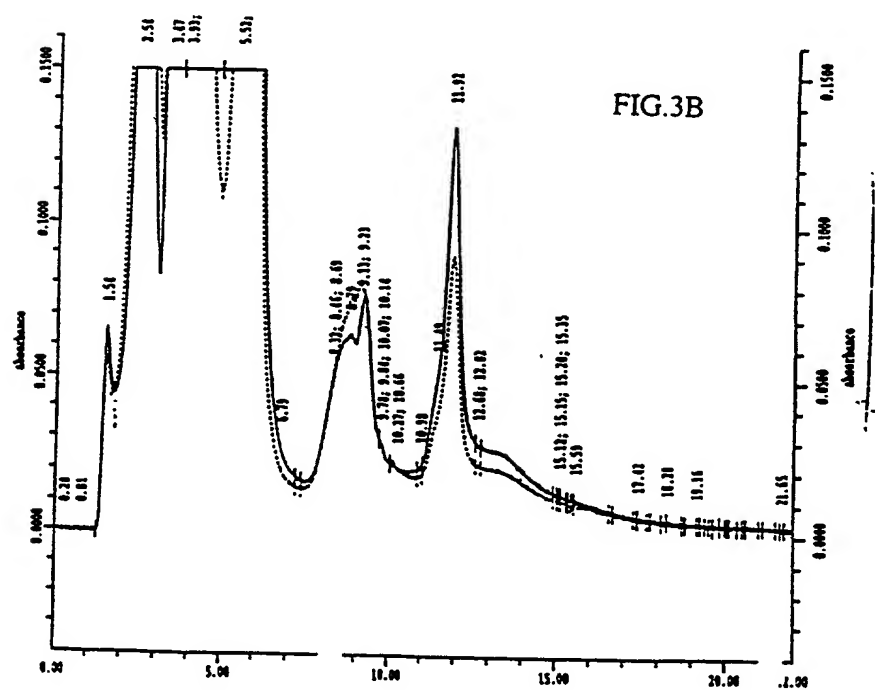


FIG. 2



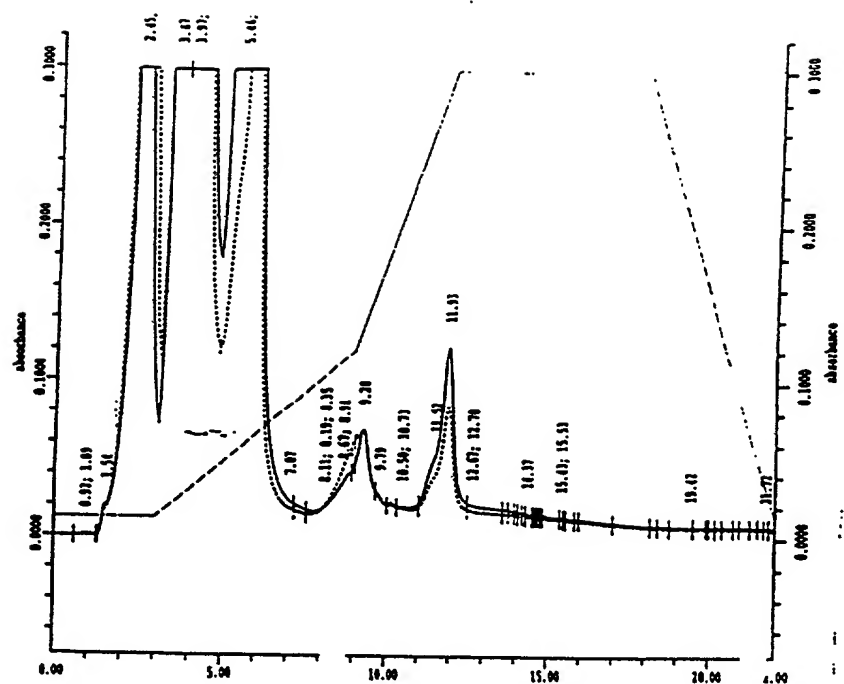


FIG.3C

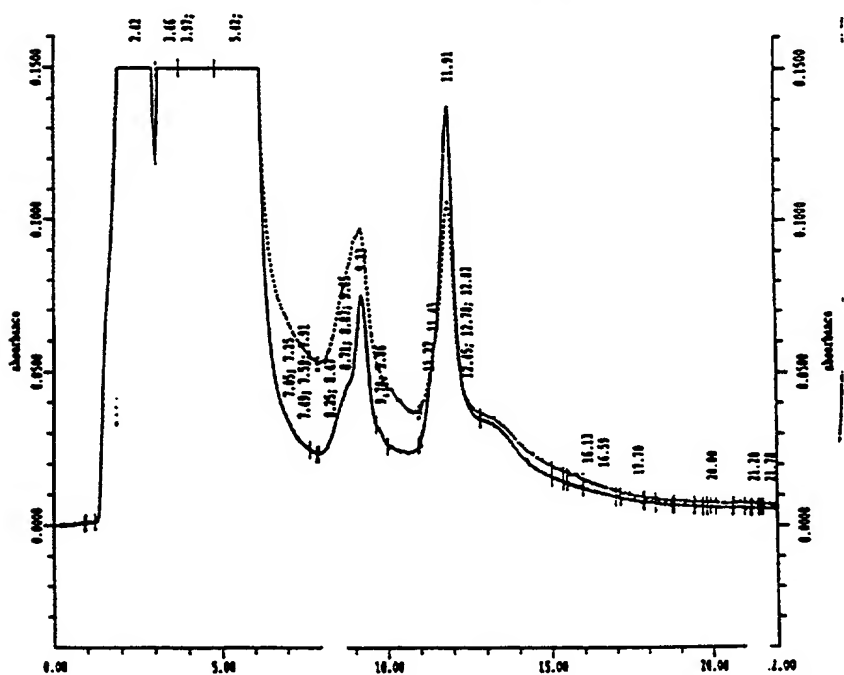


FIG.3D

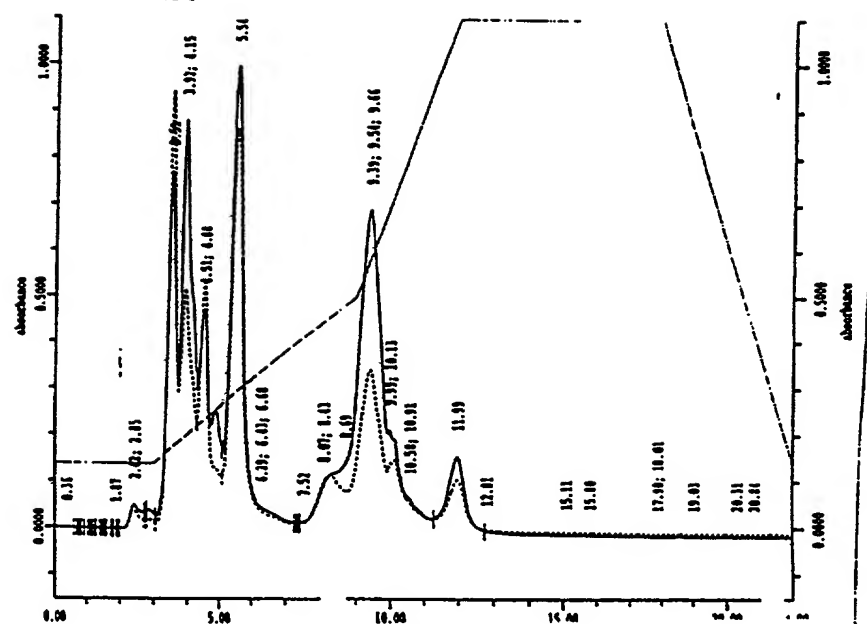
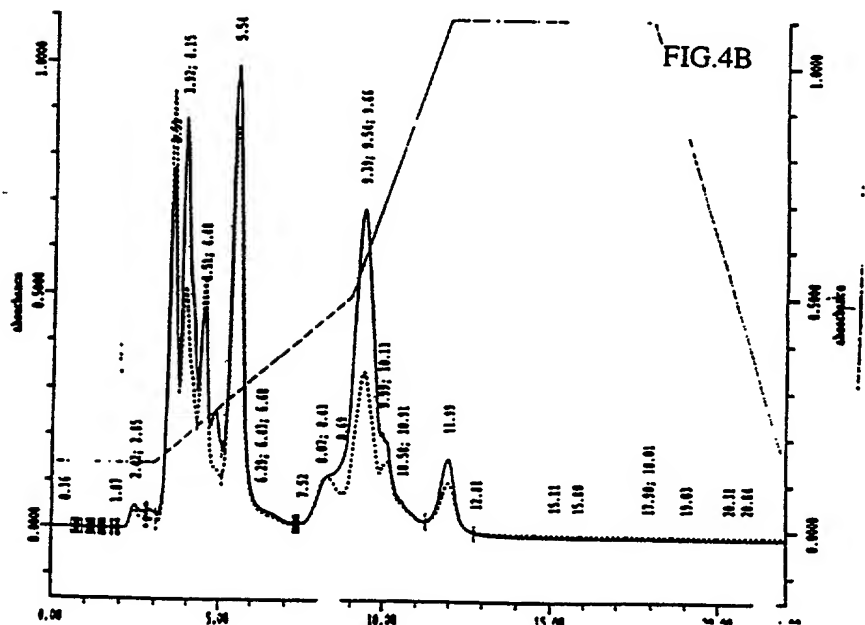
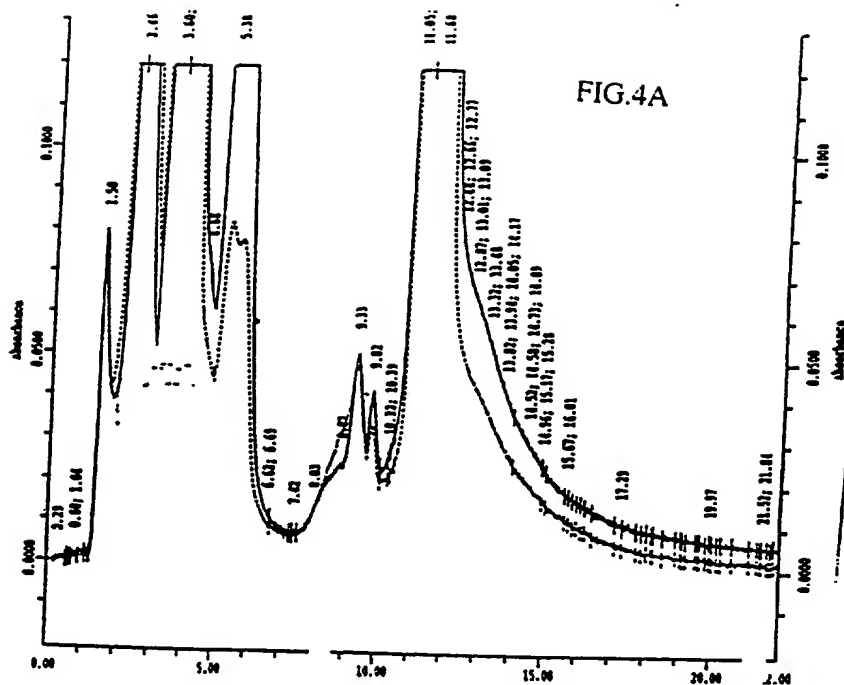


FIG.3E



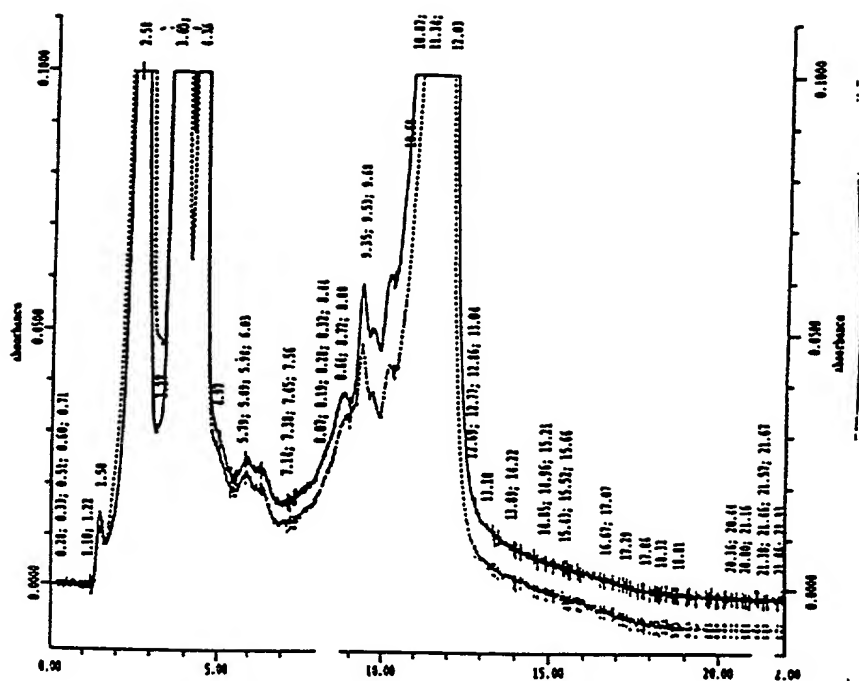


FIG.5

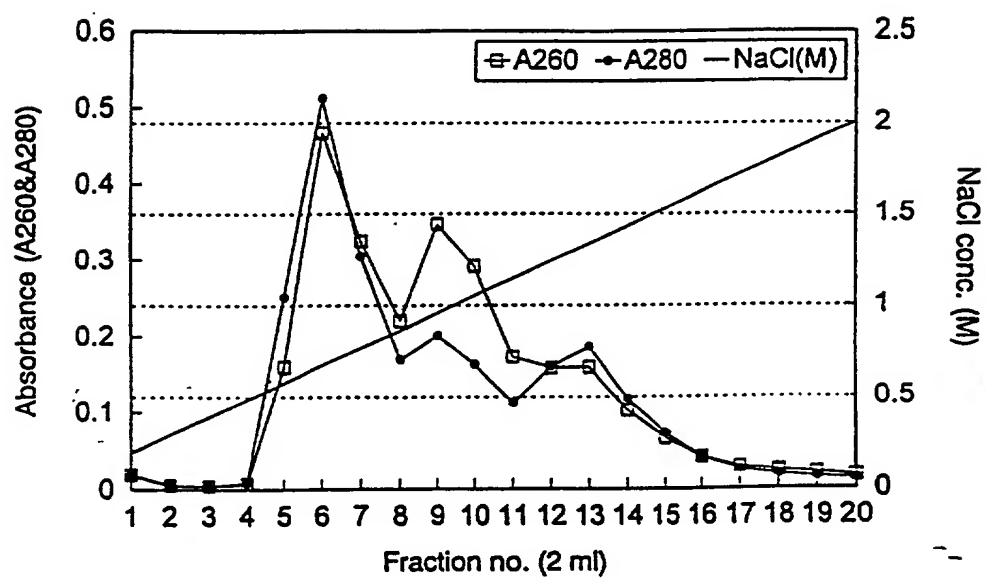


FIG.6

1003494.122703

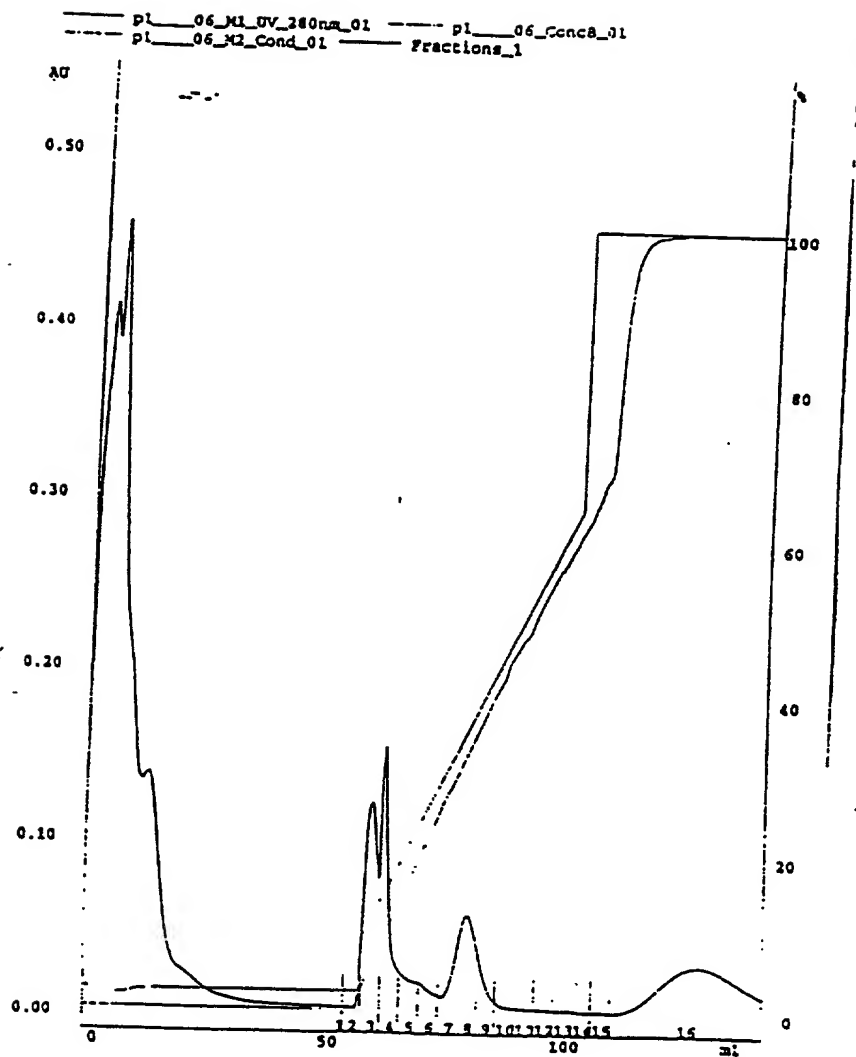
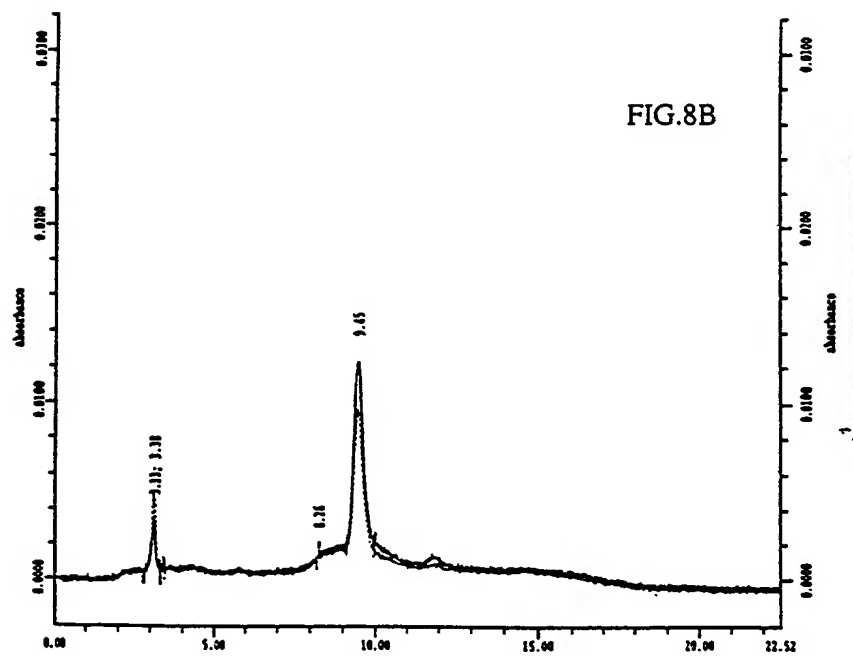
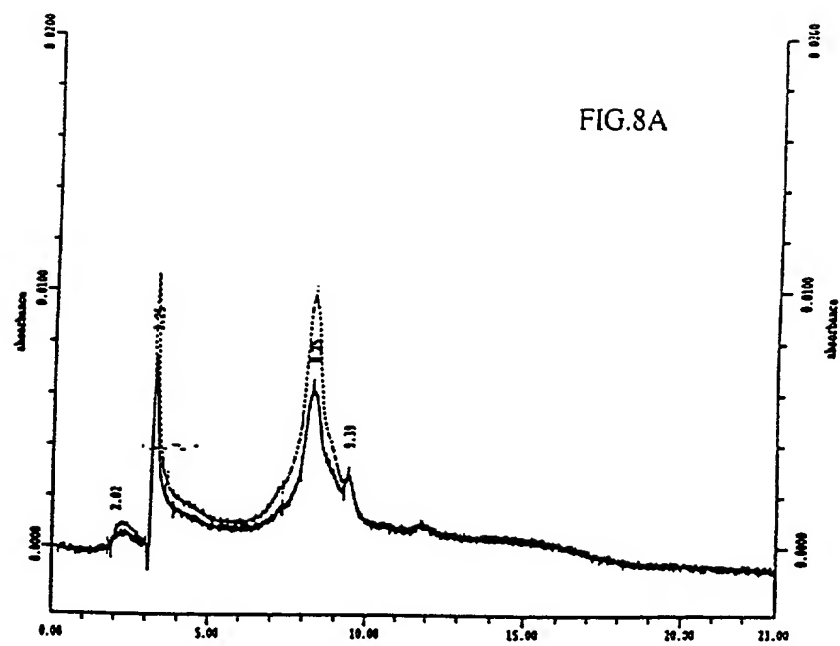
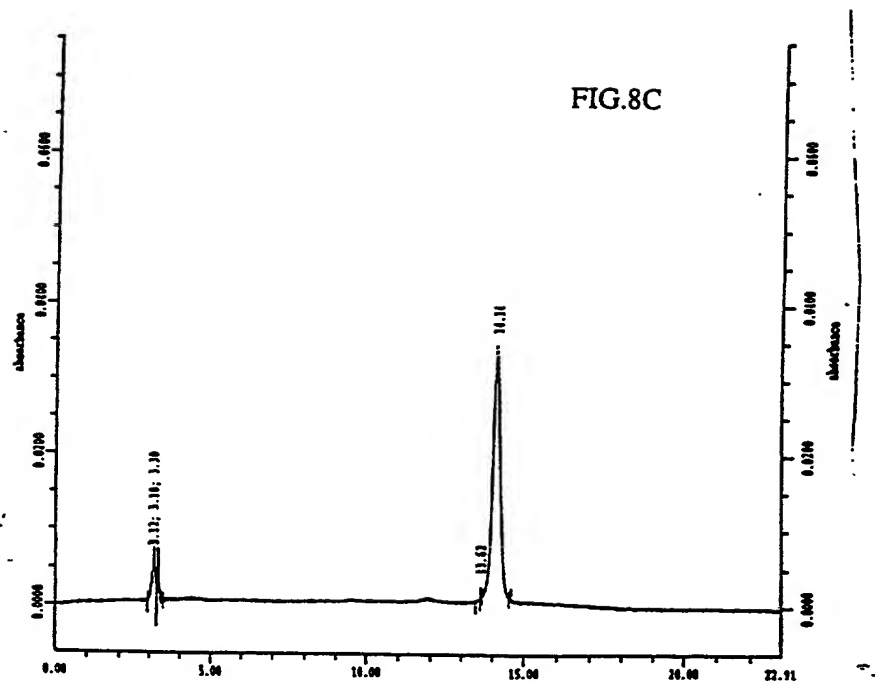


FIG.7

102227-64607





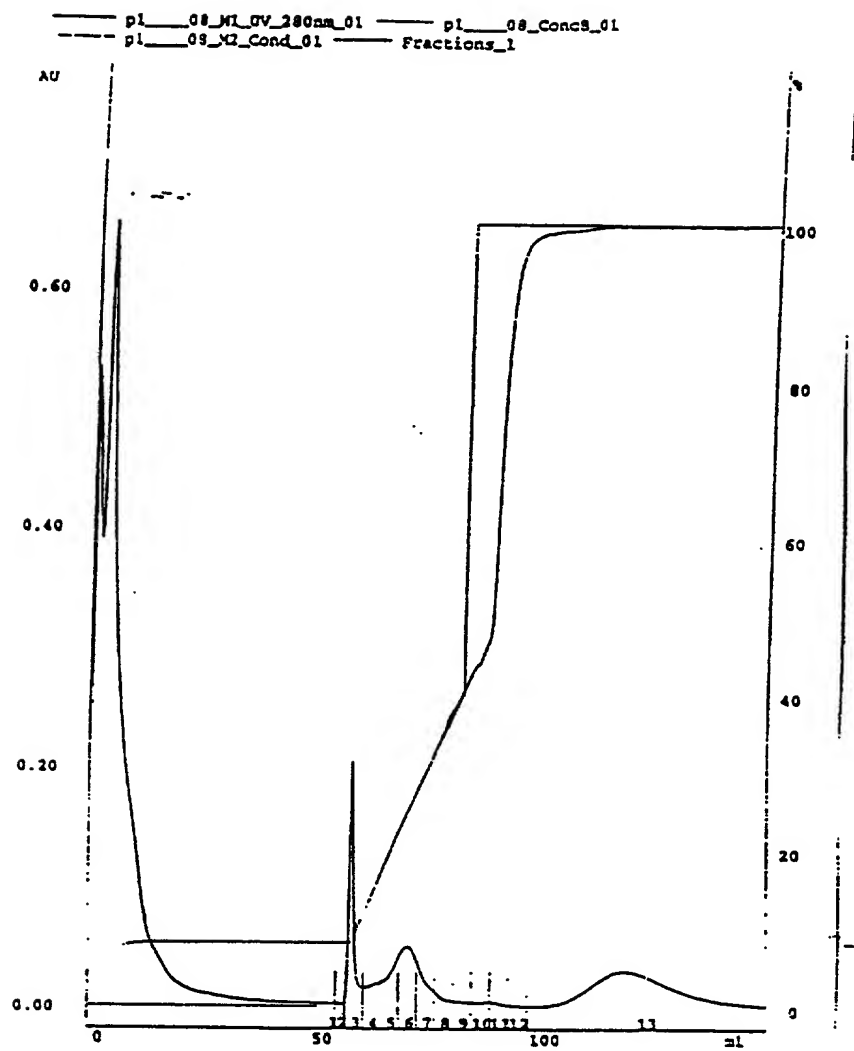
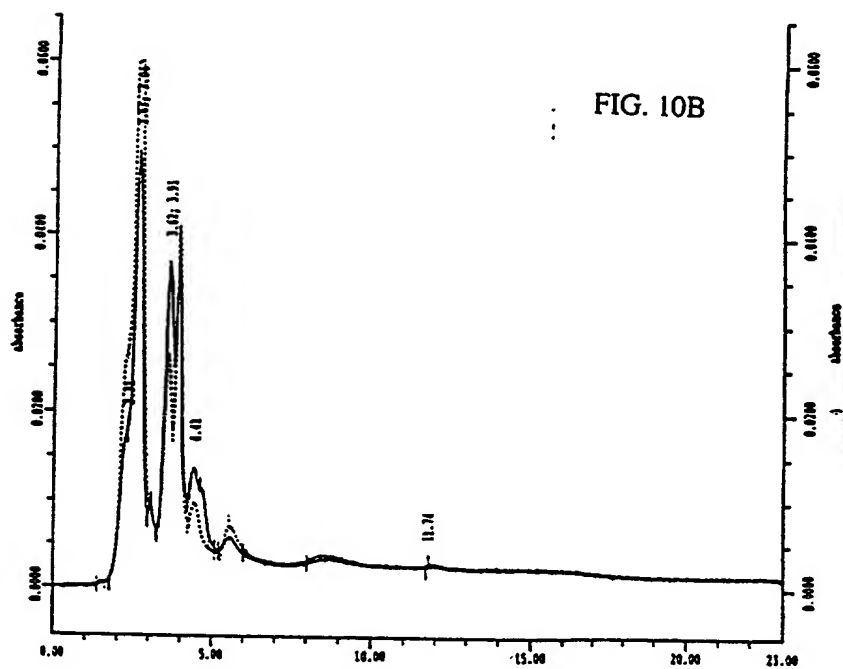
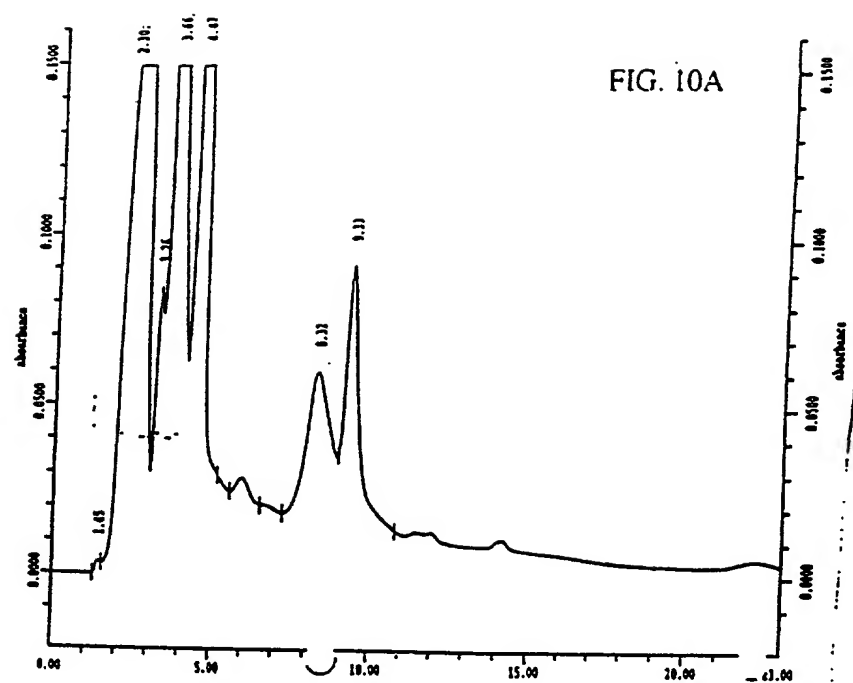
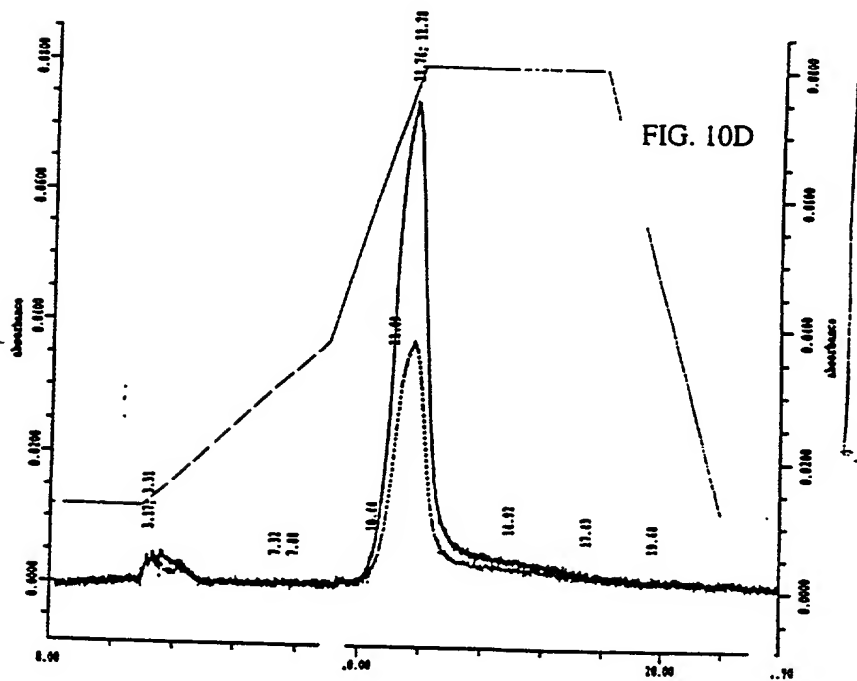
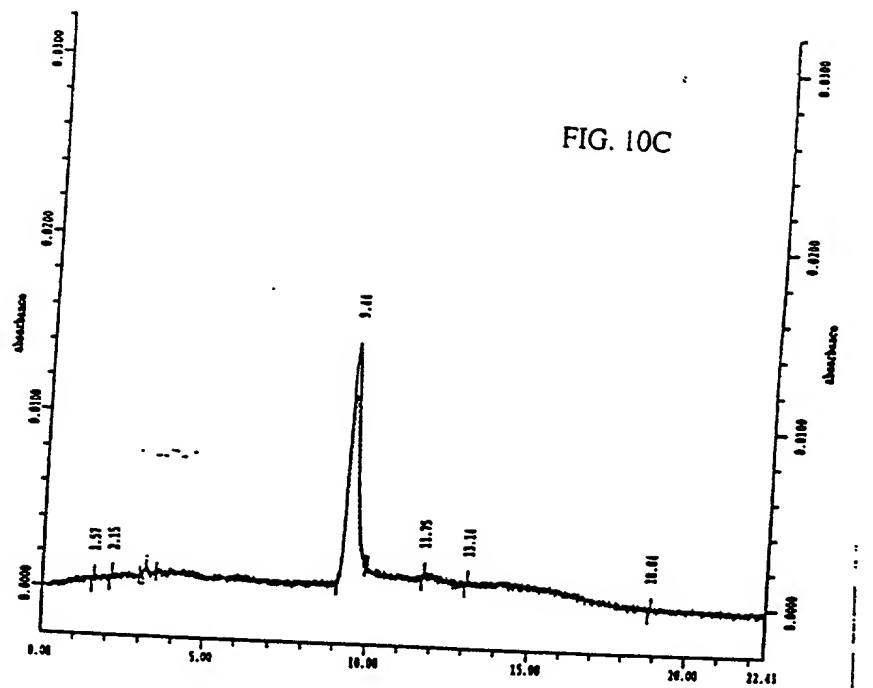
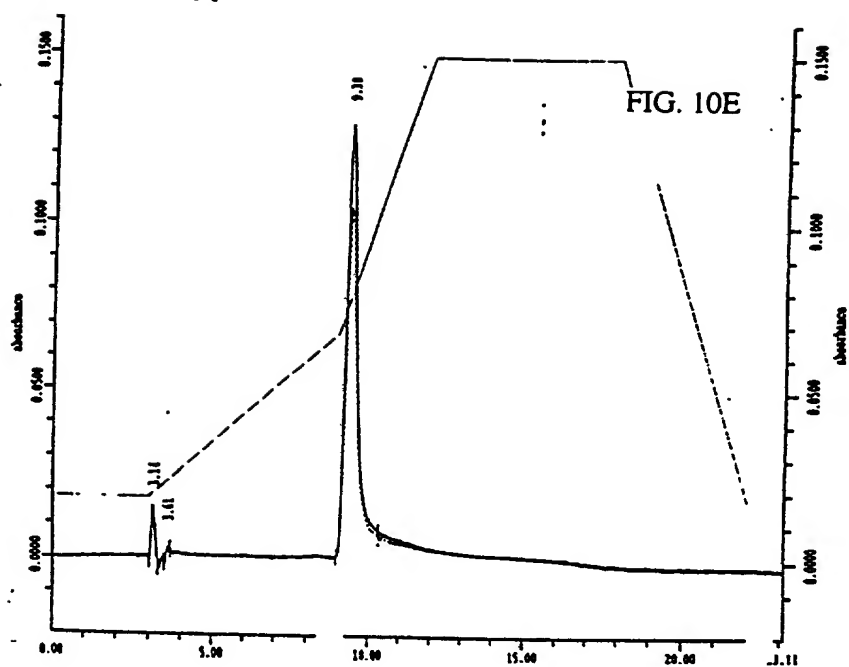


FIG. 9







TOGETHER WITH

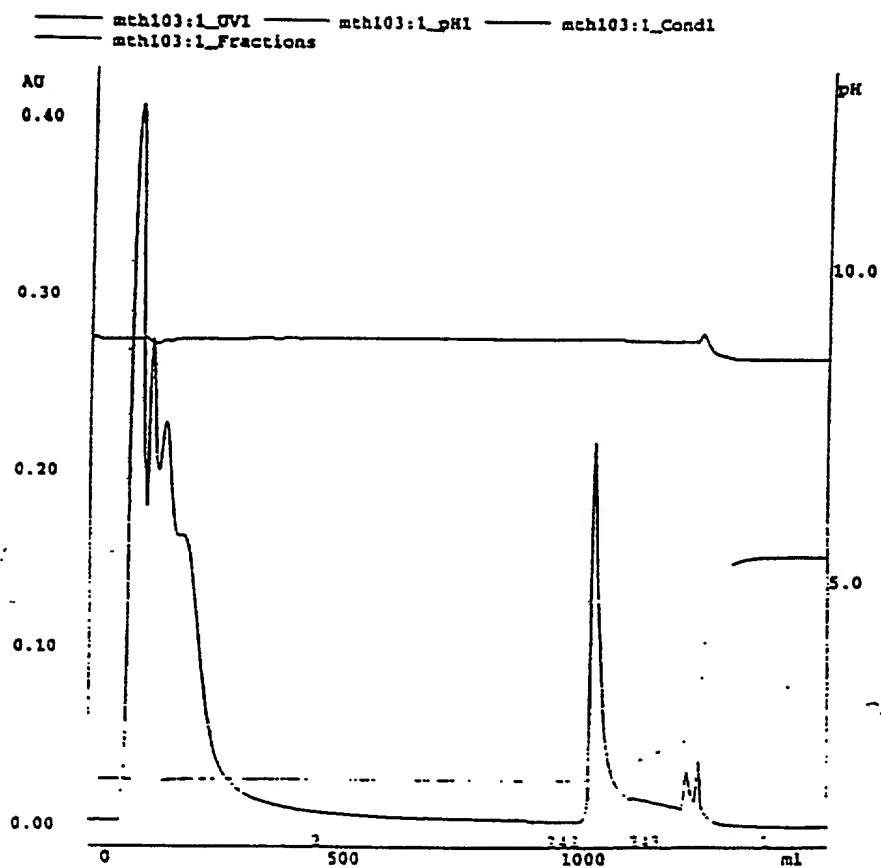


FIG. 11

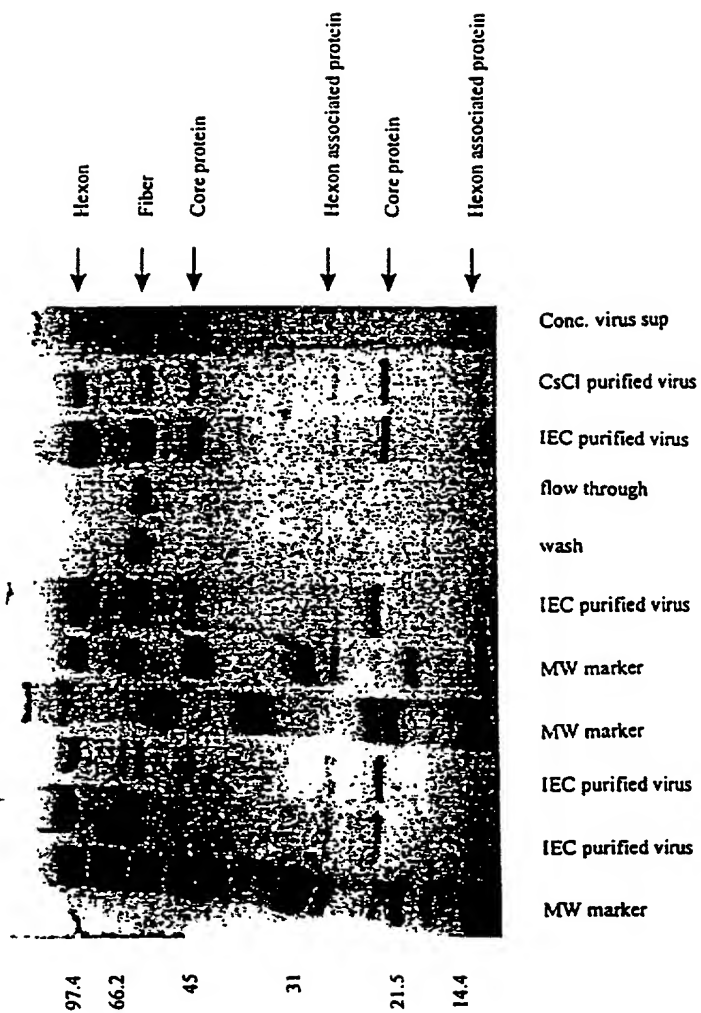


FIG. 12

66.2 kd

Novex MWM
BSA Std
Vector sup
Conc./diafil. sup
IEC purified Adp53
CsCl purified Adp53
BSA Std
Flow thru
Wash

Novex MWM

FIG. 13

•

10/22/21 16:55:00

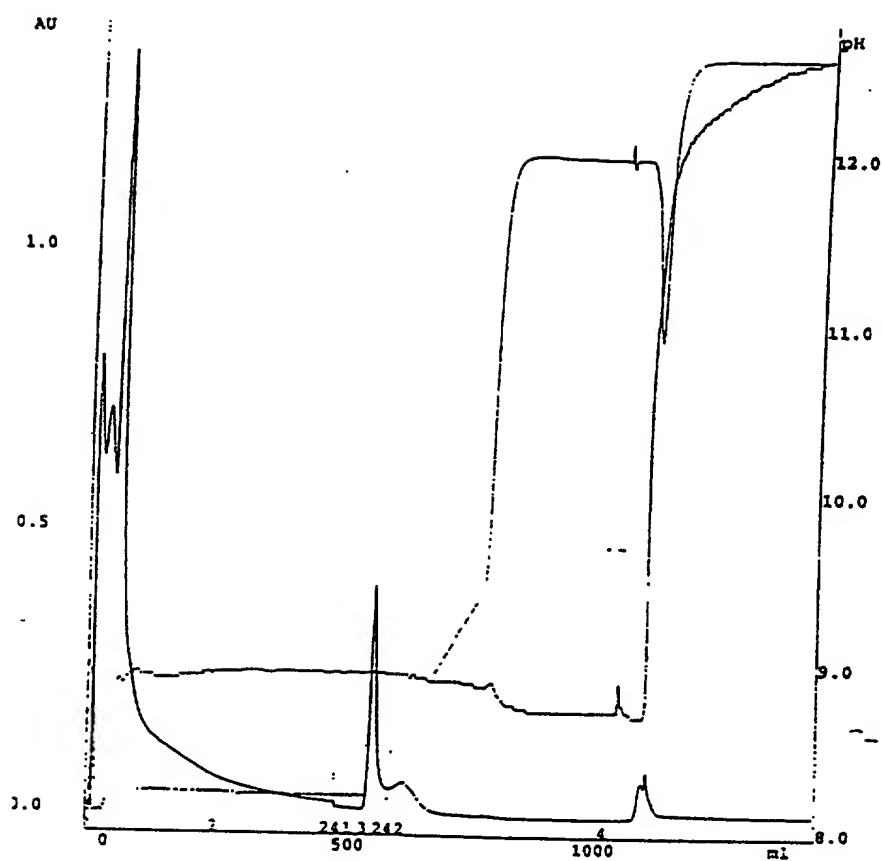
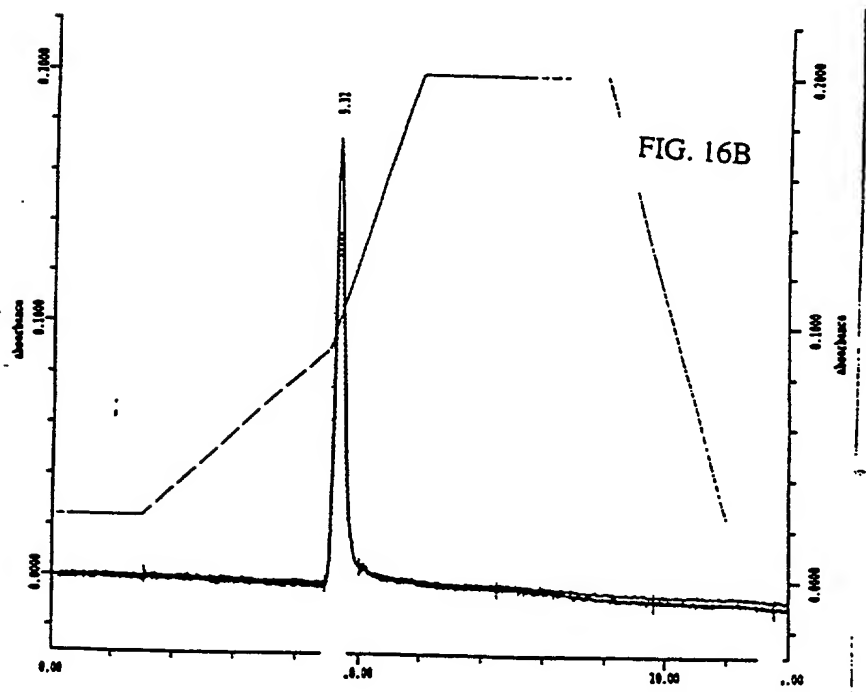
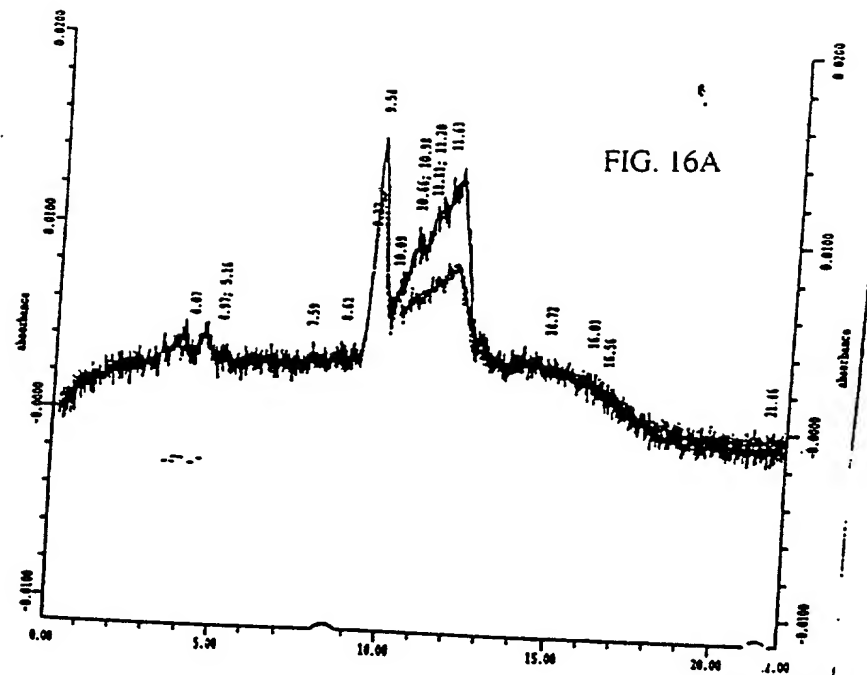


FIG. 15



1004491-122704

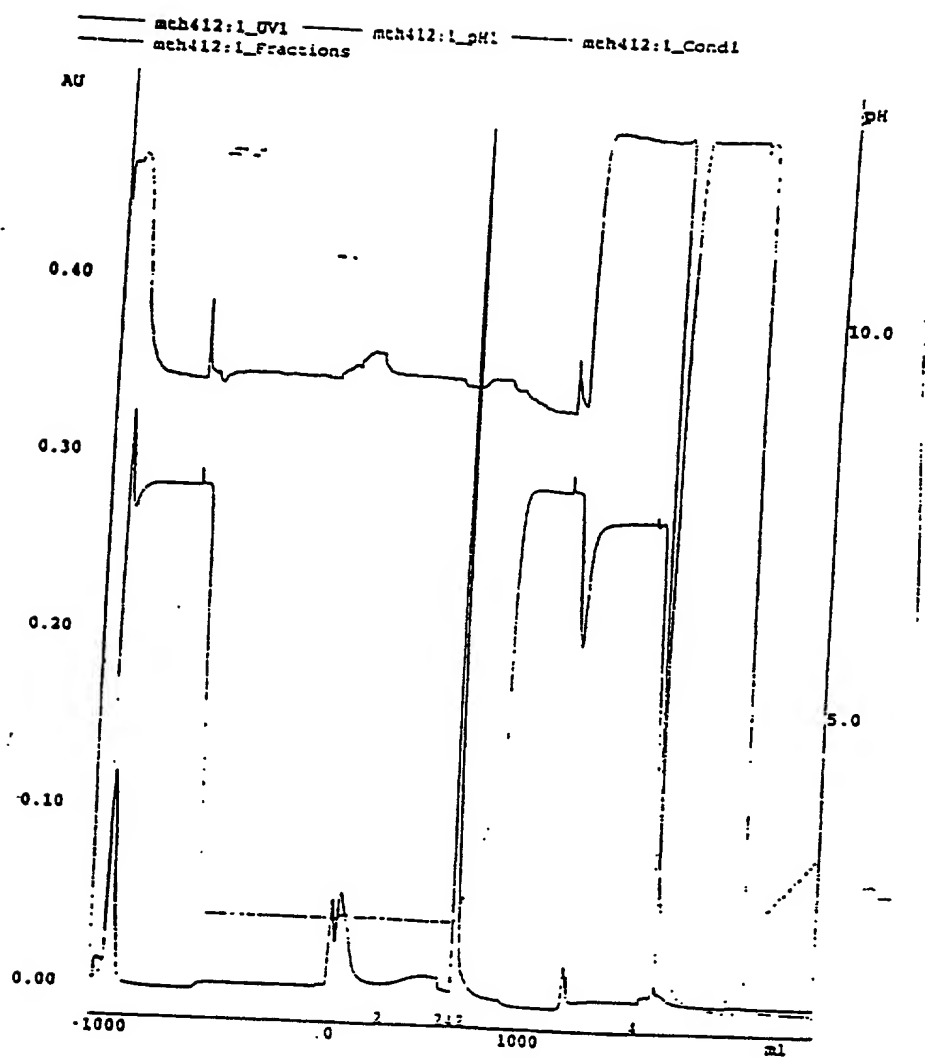
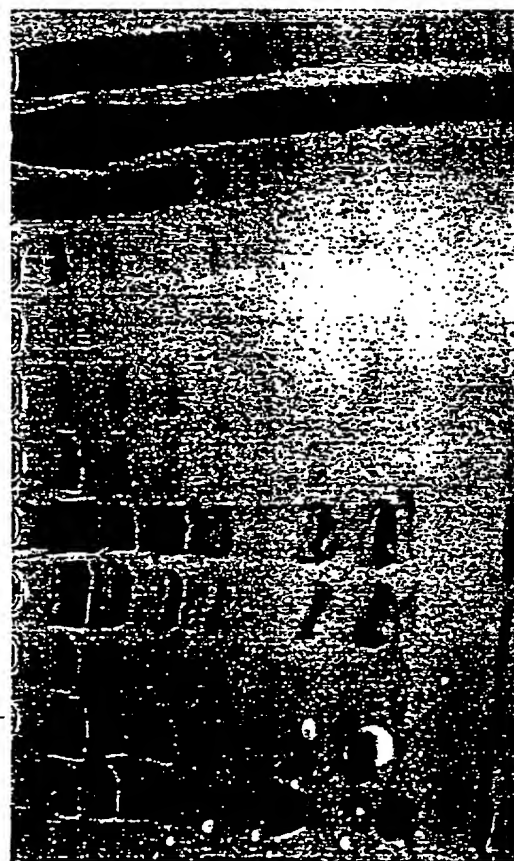


FIG. 17

A chromatogram plot showing absorbance versus time. The x-axis is labeled 'Time' and ranges from 0.00 to 20.00 minutes. The y-axis is labeled 'Absorbance' and ranges from 0.0000 to 0.2000. A single, very sharp peak is visible at a retention time of 9.79 minutes, reaching an absorbance of approximately 0.2000. The baseline is stable and near zero throughout the rest of the run.

FIG. 18

FIG. 19A



Tween-20 harvest

Conc. Tween-20 harvest

Flow thru

IEC purifiedAdp53

IEC purifiedAdp53

IEC purifiedAdp53

Conc. IEC purified Adp53

Conc. IEC purified Adp53

Defective virus

CsCl purified Adp53

MWM

97
66
45
31
21.5
14

BSA



MW marker
MW marker
1% Tween HVST
Conc./diafil. virus sol.
Diluted Benzonase treated
virus solution
Flow through
IEC purified virus
Blank
MW marker
IEC purified virus

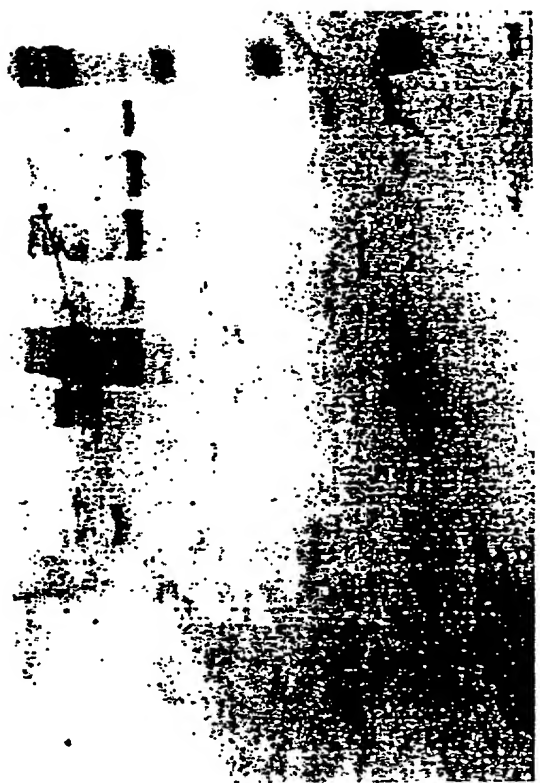


FIG. 19B

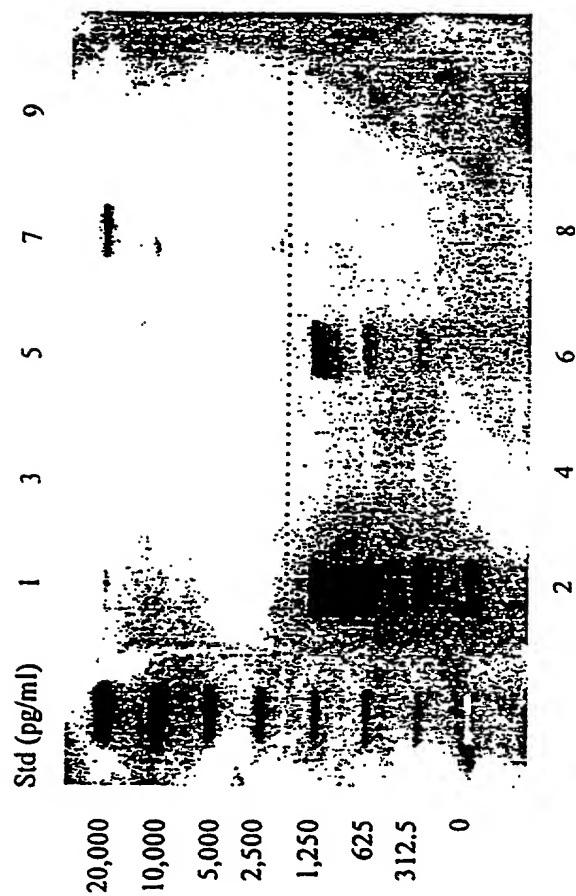
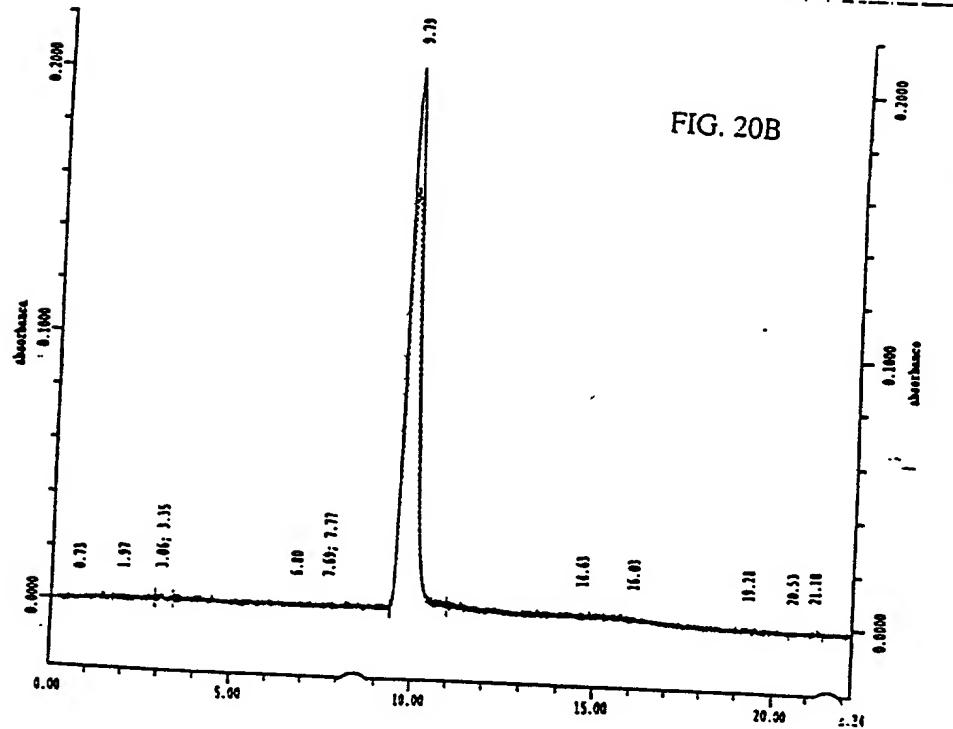
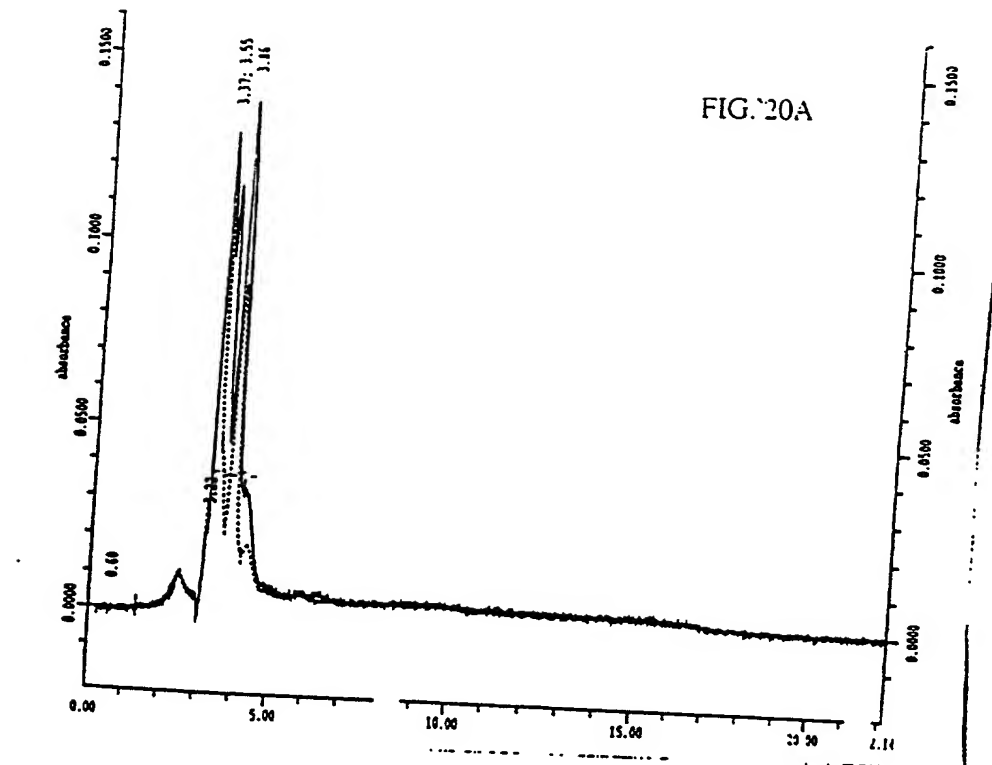


FIG. 19C



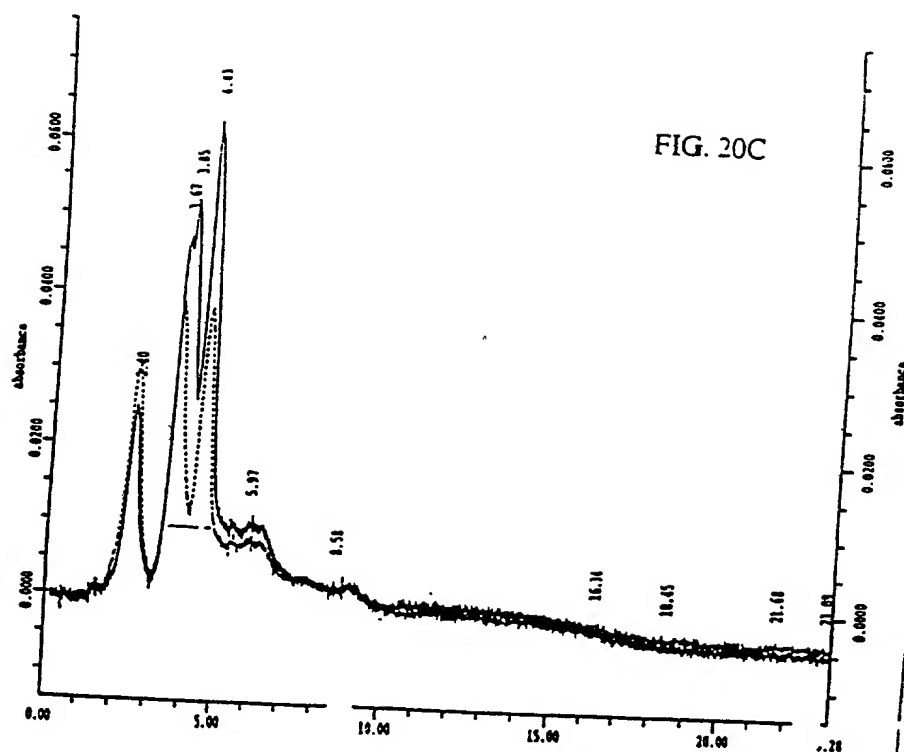
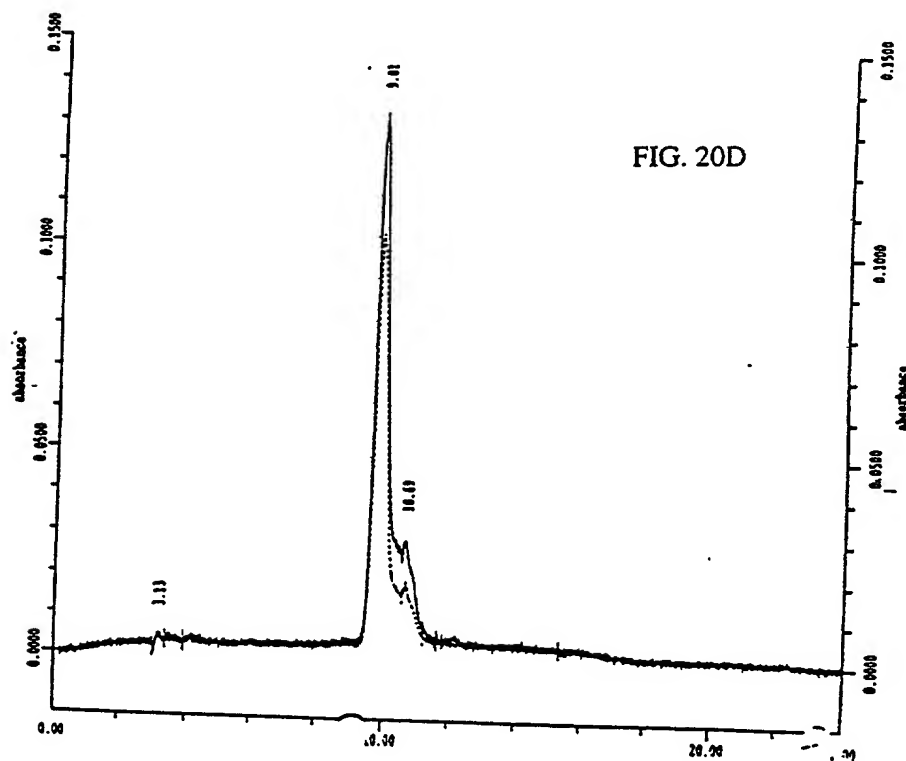
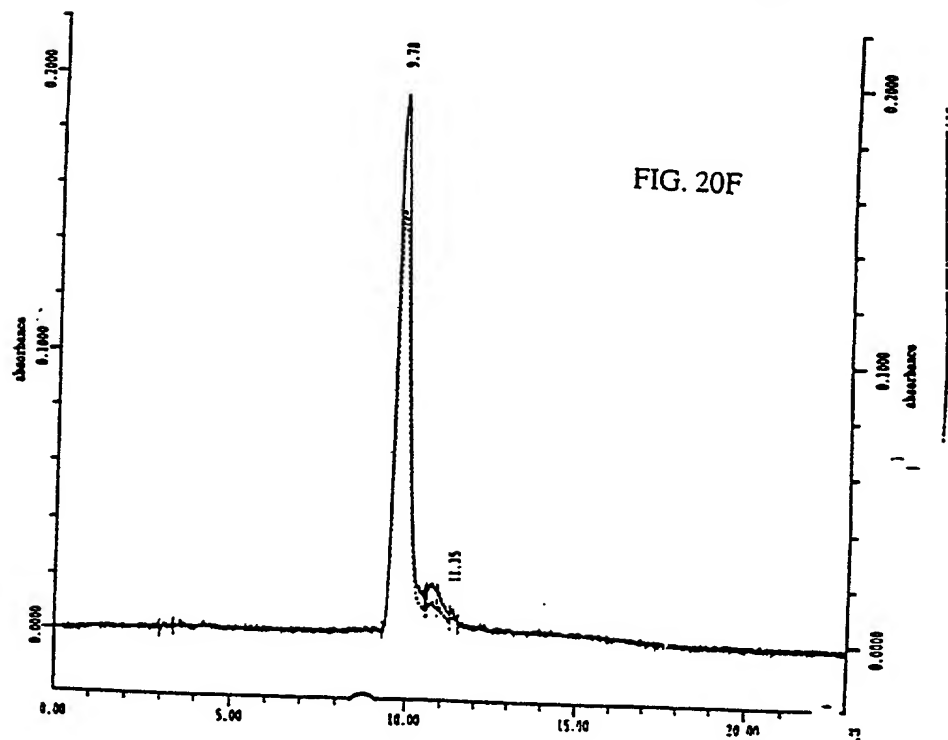
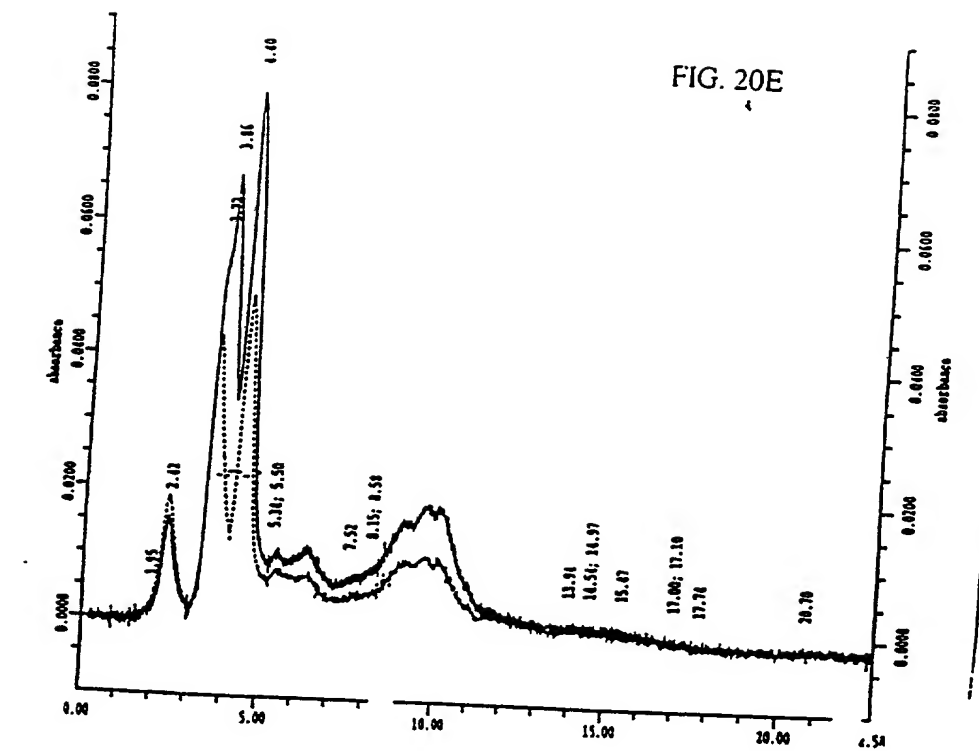


FIG. 20D



[illegible]

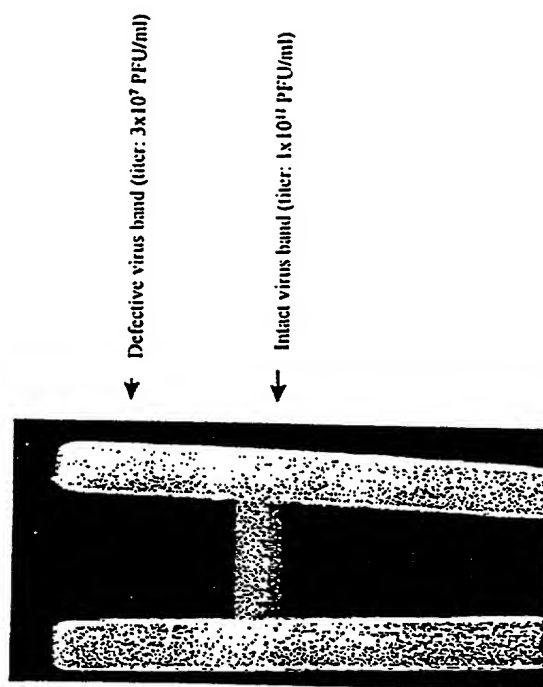
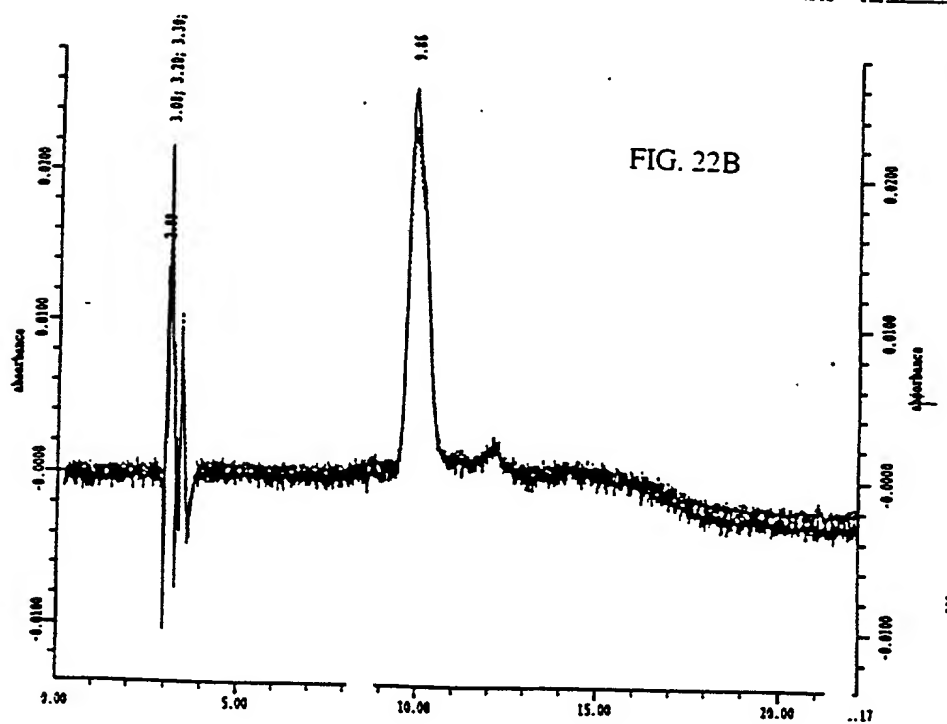
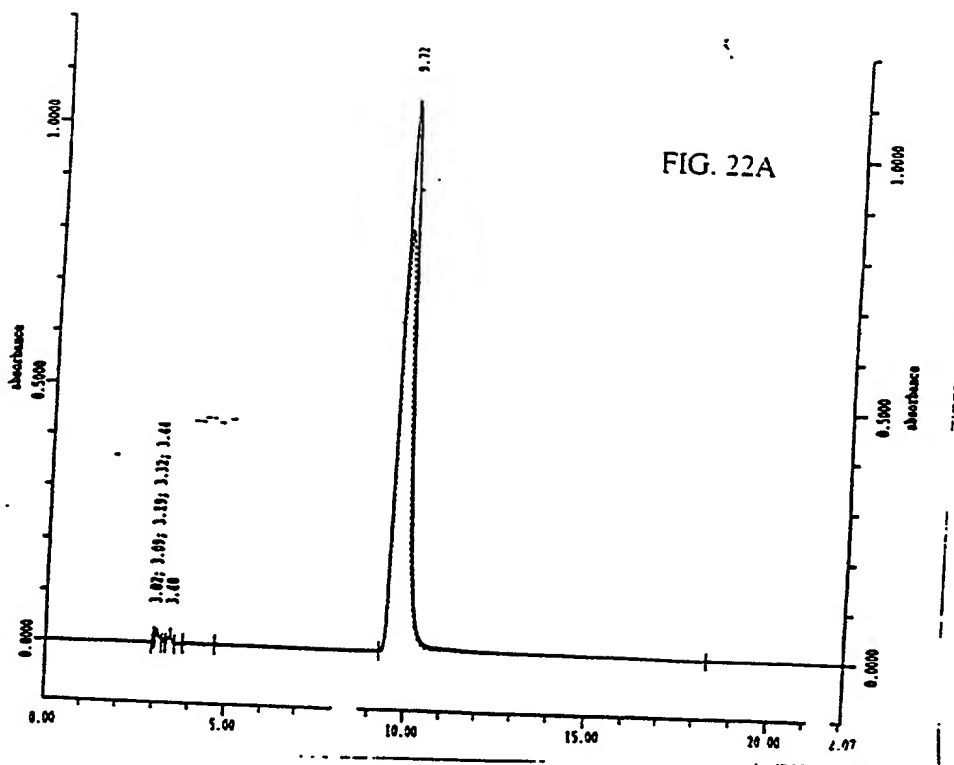


FIG. 21



		Titer (PFU/ml)	Vol. (ml)	Yield (PFU)	Recovery (%)	
					Step	Acc.
Cube	(low perfusion rate, keep glucose > 1g/L)					
	↓ 1% Tween-20 in buffer A					
Harvest						
	↓ Clarification and Filtration (0.22 um)					
Virus solution		2.6x10 ⁹	1900	4.9x10 ¹²		
	↓ Conc./diaf. (10-fold conc., diaf. into 1M NaCl buffer A)					
Conc. sup		2.5x10 ¹⁰	200	5x10 ¹²	102%	
	↓ Benzonase treatment (O/N, RT, 100u/ml)					
Treated sup						
	↓ Dilute with water to conductivity = 22-25 mS/cm					
Diluted virus solution		7x10 ⁹	700	4.9x10 ¹²	98%	100%
	↓					
Purified virus		1.5x10 ¹⁰	240	3.6x10 ¹²	73%	73%
	↓ conc./diaf (5-fold conc.)					
Final purified product		7x10 ¹⁰	50	3.5x10 ¹²	97%	71%

FIG. 23